2009 Florida School Garden Competition
ENTRY FORM

School  Endeavour Elementary

Teacher(s) & Grade(s) involved in garden program
5 classes of kindergarten, 5 classes of third graders (includes entire grade levels)

__________________________
Contact Person  Barbara Wilcox

Time contact person can be reached 7am - 4pm

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Address (please include city and zip code)

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CATEGORY (Please mark only one)

_____ SINGLE CLASS GARDEN (Garden used by one class only)
Number of students in class and grade ________

_____ MULTIPLE CLASS GARDEN (Garden used by more than one class or grade, but not by the entire school)
Number of students involved in the garden and grades 165, plus available to entire school as an outdoor classroom. Also, 1st grade - 85 for Welcome to the Garden and transfer of the garden

_____ ENTIRE SCHOOL GARDEN (Garden that is used by all grade levels at the school)
Number of students involved in the garden and grade _________

TYPE of school garden that you use with your students. (Please mark only one)
Vegetable
Flower
Combination vegetable/flower
Other, please specify Flower and Herbal Gardens

Please indicate the number of hours a week, on average; your students spend in the garden.

1 Hour per week in Fall, 1.5-2 Hours per week in Spring

1. Please mark all the activities that your students participate in prior to gardening.
   - Planning the garden
   - Designing the garden
   - Preparing the garden
   - Choosing plants
   - Other, learning about gardening tools, different types of seeds
   - Studying leaves, learning names of our ABC plants already in the existing gardens

2. Please mark all the activities that your students participate in while in the garden.
   - Planting
   - Observing
   - Playing
   - Experimenting
   - Other, Reading in the garden (with and without Book Buddies), taking photos of plants and insects, designing garden signs
   - Watering
   - Recording
   - Sitting
   - Weeding
   - Harvesting (flowers AND caterpillars)
   - Fertilizing

3. Please indicate the percentage of time, on average, that you used the garden as an instructional tool in your classroom. 1.5-2 hours per week at a minimum.

4. Please mark the subject area(s) into which you have incorporated school gardening. Check all that apply.
   - Math
   - Science
   - Social Studies
   - History
   - Health/Nutrition
   - Language Arts
   - Music
   - Physical Ed.
   - Environmental Ed.
   - Ethics (responsibility and nurturing)
   - Other, please specify Service Learning (civic responsibility)

5. Please indicate the number of years that a school garden has been part of your curriculum. 6 years

6. Please indicate the types of volunteers that have helped you and your students with the garden.
   - Master Gardeners
   - Senior citizens
   - University students
   - Garden club members
   - Parents and Grandparents
   - High school students
   - 4-H members
   - Older students at your school
   - FFA
   - Teacher assistants, custodians, school board members
   - Community members and district resource teachers
7. Please indicate the source(s) of information used to assist in the incorporation of school gardening into your school's curriculum. Check all that apply.

- County Extension service
- Teacher in-service training
- Personal knowledge
- Educational journals/publications
- National Gardening Association's Growlab/Growing ideas newsletter
- Other, please specify: Local nurseries, Jr Master gardening books, Internet searches

8. Please indicate the types of educational material(s) used in the classroom to support the use of school gardening in the curriculum.

- Library books
- Internet
- Filmstrips
- Textbooks
- Trade books
- Newspapers
- Other, please specify: Student generated books (past and present) about gardening, photo albums, Powerpoints (past and present)

By submitting the same you acknowledge and agree that the University of Florida (and Walt Disney World Co.) may reproduce the same, and all materials may be displayed (in part or in whole) at the 2010 Epcot® International Flower and Garden Festival and for other promotional materials. Such presentation materials (and School Garden packets) will NOT be returned to you (they will become the property of the University of Florida and Walt Disney World Co.) Finally, you acknowledge and agree that should your school be selected as a winner under the competition, then to the extent any of the photographs or materials submitted contain the names of likeness of students, teachers and/or others, you will be required to have adult individuals sign (and the parents/guardians of such students) sign consent/release forms provided by us so that we can display those photographs or materials concerning your winning garden. Such requirement would be a condition of your accepting the award.

I have read and understand the above.

Barbara Wilson
Signature

3-17-09
Date
EDUCATIONAL RELEVANCE
How is the garden used for interdisciplinary learning, what subjects are emphasized?

Our Kindergarten Gardening project began in 2003-04 between one kindergarten class (16 students) and their 5th grade book buddies. They built a butterfly garden in the shape of a butterfly to learn about plants, insects and to beautify a sandy area. Every succeeding year this garden has been maintained and expanded. The kindergarten students (currently five classrooms- 87 students) have added an ABC garden, a Five Senses garden, and a Rainbow garden. Last year (07-08) we expanded into third grade (four classes). They became our science mentors and taught our kindergarten students during classroom rotation while kindergarten built the Tea Garden.

They have invited other grade levels to participate in gardening, started composting and raised butterflies to share. This is the sixth year our garden projects have also been service learning projects. In addition to providing our school with outdoor classrooms, we’ve also provided mentoring possibilities for other students as well as increasing our intergenerational focus by including seniors and grandparents in our garden activities.

As our gardens continued to grow so did the amount of butterflies. Last year we utilized a screen tent as a butterfly habitat, this year we built a 20’ x 32’ permanent screened enclosure with raised garden beds. Our students voted (using the democratic procedure) and chose to name it, “The Butterfly Castle”. We also built a “Hallway of Arbors”. We used container gardens, planted them with passionvines, and placed them down the hallway from the front office to the garden in the back of the school to expand and generate additional learning opportunities by having these “mini-habitats” closer to individual classrooms.

In past years we held five “big” gardening days, but this year with our new butterfly castle to plant, we started earlier in the year and have planted during eight garden days. In September the kindergarteners invited first grade back to the garden in what is now an annual event (2008-09 marks the third year) called “Transfer of the Garden”. This year we extended into an additional grade level by inviting PreK for a “Welcome to the Garden” Day in March. This year our projects included:

**September**: Kari Ruder (Naturewise Nursery) talked to our kindergarten class about the firebush which we planted in our new Butterfly Castle (*science, language*). Our third annual, Transfer of the Garden Day- We invited the first grade students to return to the garden and teach our new kindergarten students how to plant plants and seeds as well as rotate between classrooms. Activities included: Cut and paste “I love you” flowers (*fine motor skills, colors*) Garden pictures (*following directions, counting, colors*) Bug K’Nex (*following directions, colors*), parts of a plant and insect puzzles (*science/math*). In the garden every kindergartner student planted a flower and planted heritage seeds (ones we harvested from our Passionvines and fennel plants) (*citizenship, science, language*). We had 8 community volunteers including Kari, two other master gardeners, and four senior citizens. (*Intergenerational focus*)

**October**: Our first garden day with our third grade mentors. Last year we only had third grade mentors in the classrooms but with the addition of another third grade classroom this
year, we now have mentors in the garden also. During this month, our garden volunteers modeled for the third grade mentors how to talk to the kindergarten students and watched/supported them while they talked. The third grade students showed kindergarten the different parts of the plant while helping them plant flowers and seeds. (Science, language) We had nine college students, two college instructors and four community volunteers (one master gardener and two seniors) support this garden day. In the classrooms, our third grade mentors taught the following: Garden Survey- they interviewed kindergarteners about gardening (language, math) {In the days that followed the third grade students graphed all the information gleaned from these interviews- math, language} Read Tops and Bottoms story and sorted food by which part of the plant we eat (science, language, math), Labeling the part of the plant using weeds taken from the garden (language, writing, science). Learning and singing a plant song and dance (language, music, movement). Ms. Kari taught kindergarten about the corky stem passionvine this month. (Science, language)

**November**: Ms. Kari shared the pennyroyal plant with kindergarten. (Science, language) Third grade students in the garden in addition to being garden mentors also took turns being photographers. (Technology) In the garden we planted pumpkin seeds (taken from our Halloween pumpkin) in recycled milk cartons, planted milkweed seeds, added plants in all areas of our gardens and also planted the container in the front of our school for beautification. (Science, environmental awareness) Our classroom activities included: Buggy K’Nex (following directions/math), Insect thumbprints on Letter “i” (language), buggy Bingo (math), and Spin an Insect (science). We had 7 community volunteers, including 2 seniors and 3 master gardeners.

**December**: We (kindergarten and third grade mentors) planted passionvines along the fence as well as planting flowers throughout all the gardens and planting seeds to grow to donate to the local senior center. (Science, language, service) During classroom rotations third grade mentors taught our K-students: compare and contrast seeds (science, math) bird/insect knowledge ball catch game (science, movement, language) flower petal number identification (math-numbers/colors) and seed addition (math). We also harvested seeds from fennel, basil, passionvine and milkweed plants to plant during this garden day. We had five community volunteers including a school board member.

**January**: Ms. Kari visited and talked about beach verbena. (Science, language) In the garden, with third grade support, we finished planting the Butterfly Castle and planted seeds to grow to donate plants to senior center. (Science, language, service). Classroom rotation consisted of: Identifying beneficial insects-sorting good/bad/both (math, science), flower addition (math), compare/contrast: arachnids vs. ladybugs (science, language) and K’Nex (building bugs). We received a donation of 20 plants from one community member in addition to our volunteer’s time which included the Brevard County Science Resource teacher, 3 master gardeners and 2 seniors.

**February**: In celebration of Lincoln’s 200th birthday we planted 200 flowers in the gardens. (Science, social studies) During gardening time, the third graders asked kindergarteners to name the parts of the plant and watched how they planted to help prepare them to mentor PreK during March gardening day. (Science, citizenship skills) We also planted 12 container
gardens which will make our “Hall of Arbors” and have placed them along the walkway from the front office to the garden. (Science, environmental awareness) Our classroom rotations included “Dirt Dessert” (cooking-science, math), plant and insect parts puzzles (science, math) decorating a recycled yogurt container to use for a vase for mom for Valentines day (science, art, environmental awareness) and making a paper flower to put inside. (following instructions, art). During February we implemented our yearly garden contest. This year we held a school-wide garden sign contest to make signs for each area of our garden. We had 8 winners (ABC garden, Rainbow garden, Butterfly garden, Butterfly Castle, Tea Garden, Five Senses garden, including a sign for sight and taste). Students are still working on the remaining senses signs.

**March:** Kindergarten students with the help of their third grade mentors taught PreK students how to plant an herb and plant a seed. They showed PreK students the different parts of a plant. The PreK students planted the extension (two raised beds) of our Tea Garden so next year when they are in kindergarten, they can drink tea from herbs they planted. Third grade mentors and community members supervised, supported and took photographs. A visiting therapy dog listened to students read stories after they have finished planting. (Citizenship/Social studies, language, reading) The PreK students rotated through the kindergarten classrooms and participated in the following activities: Making “dirt dessert” (cooking-math, language), plant and insect parts puzzles (math, language), drawing a flower garden (color identification, number of flowers, art), decorating a recycled yogurt drink for a vase for mom (art, colors). Our community volunteers include 2 master gardeners and 1 senior citizen. (Our senior citizen was voted as Senior Volunteer of the Year for the second year in a row. He also put together our Tea Garden raised beds, which the third graders filled with dirt and painted our Hall of Arbor container gardens). We will hold our Grand Opening of the Butterfly Castle on the first day of spring (Friday March 20). Our third grade students are writing poems to read, we will chose a third grade student and a kindergarten student to “cut the ribbon” and we will have a ladybug/butterfly release as well as an unveiling of the garden signs. School and community members are invited to attend.

**April:** This will be our last garden day with our third grade mentors. In the garden we will be planting the remaining Tea Garden bed extension as well as making sure all areas of the garden are fully planted. The third grade students haven’t planned their concepts yet but they will be focused upon insects in the garden. Possibilities include insect parts and insect lifecycles.

**May:** Garden Celebration. This will be our fourth annual Garden Celebration. Each kindergarten class performs a story, skit, song or dance to show our garden learning. Mentors and volunteers will be recognized. Kindergarten students will make foam flowers for the third grade mentors and a garden photo album for the teachers. This year for our garden volunteers, one class of kindergarten students wrote a book called, “The Garden Glove” (based upon the story, The Mitten) and changed the name of the main character in each book to correlate with our adult garden volunteers. Cake and drinks will also be served.
ALL garden days incorporate Social Studies, especially good citizenship manners such as sharing, patience, responsibility, and effort. This is apparent in all classrooms and also in the garden. Students are learning to be caretakers of the garden, how to work with one another and community members, how to follow rules and procedures and how to become garden advocates.

Other activities pertaining to the garden but not done during the eight gardening days include reinforcement of some of the above (life cycle study and insect/plant thematic units-in each kindergarten and third grade class taught during regular classroom time,) finding caterpillars in the garden, observing their life cycles in nature or in the classroom discussing similarities/differences between butterflies, plants, and other insects, harvesting seeds and caterpillars and sharing with other classrooms, taking digital photos, writing a story about the garden, making compost through food/garden waste in our rolling composter as well as making compost in our worm farm, beautifying the campus by planting flowers in other areas of the campus, learning about camouflage, inviting local nursery owners to discuss plants prior to garden days, writing thank you notes to our helpers in the garden, implementing our second year of the "Johnny Appleseed project. (Global Johnny Appleseed project is to encourage environmental learning, reduce global warming and grow food by planting at least two fruit trees on school campuses. Our kindergarten students wrote to every school in the district to invite them to plant trees on their campuses along with us) We have also harvested mint leaves to make peppermint tea during our "VarieTEA" Tea Party and harvested the lemons from our Johnny Appleseed tree to flavor our tea during our Abraham Lincoln "HonesTEA" Tea Party.

This year we’ve implemented a new project called, The Earth Quilt. The Earth Quilt uses digital pictures taken from our garden and other environmental projects, printing them on fabric squares, and sending them to our partners in this project: a local high school Home economic class who has been sewing all the panels together. (Technology, science, citizenship, extension to another school)

**What resources are used to facilitate garden learning?** Our gardens are funded by teacher written grants and community donations. In 2005, our school was awarded a three year federal magnet grant; this grant funded the building of our butterfly castle. Other grants were written to provide plants, extend the tea garden, build the Hall of Arbors and provide supplies for garden rotations (*Learn and Serve*: $3568.50 for plants/seeds, teacher resources, Jr. Master Gardener teacher and student guides, caterpillars/butterflies, *Ag in the Classroom*: $515.34 for Hall of Arbors, *Learn and Serve amendment*: $1456.00 for Tea Garden extension, Service Learning District mini-grant: $730.38 for Earth Quilt and $750.00 for Butterfly Mosaic- tiles for public art displayed in the Butterfly Castle)

Two local nurseries provide gift certificates ($150.00), discounts, free delivery, plants, information about plants and insects. One nursery sends a representative each garden day to talk to the kindergarten students about a specific plant that will be planted that day. She also stays and helps mentor the students and volunteers in the garden. This year we have expanded our master gardener support to two. Our first master gardeners wrote an article for the master gardener newsletter which caught the attention of another master gardener who has also volunteered during all our gardening days.
We have several community members who donated plants repotted from their gardens. The local community college have supported Endeavour by exchanging one of their future teacher meeting days to help our students plant the butterfly castle.

Parents, Community volunteers, senior citizens, as well as older students were used throughout the year to help in the garden and in the classrooms, during gardening days and Tea Party days. All of our garden accents and tea party supplies were donated by our parents and grandparents.

We have two certified Ag in the Classroom trainers on our campus and we utilize lessons gleaned from two large curriculum notebooks filled with ideas on how to do projects concerning agriculture. Our library has a gardening corner full of books pertaining to plants and animals in the garden. At the beginning of school, during pre-planning, our teachers spent ½ day in the garden- doing a garden scavenger hunt, planting a flower, emptying gravel/dirt in the new butterfly castle, in order to spread gardening concepts and excitement to more grade levels.

**What Florida Sunshine State Standards are addressed with the garden?**

**Science: The Practice of Science:** Collaborate with a partner to collect information. Make observations of the natural world and know that they are descriptors collected using the five senses. Keep pictorial records, observe and create a visual representation of an object which includes its major features, recognize that learning comes from careful observation.

**Properties of Matter:** Sort objects by observable properties, such as size, color, shape, temperature, weight and texture. **Motion of Objects:** Investigate that things move in different ways, such as fast/slow. **Organization of Living Organisms:** all plants and animals, including humans are alike in some ways and different in others. All plants and animals have internal parts and external structures that function to keep them alive and help them grow and reproduce. Humans can better understand the natural world through careful observation. Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.

**Language: Reading:** phonemic awareness (identify sounds/letters, "A is for Angelonia"), **Vocabulary:** Use new vocabulary that is introduced and taught directly, describe common objects and events in both general and specific language, use language correctly to express spatial and temporal relationships, relate new vocabulary to prior knowledge,

**Comprehension:** make predictions about text, use background knowledge, supporting details from text, to determine if reading selection is fact or fiction, retell the main idea, arrange events in sequence, select materials to read for pleasure, participate in group response to various literary selections and connecting text to self and text to world, identify purpose of nonfictional text, retell important facts from text heard or read. **Writing:** connect thoughts and oral language to generate ideas, draw a picture about idea from stories read or class discussion, draw/tell/write about a familiar experience, topic or text, knowledge of letter/sound relationships to spell simple words, create narratives by drawing, dictating and/or using emergent writing, participate in writing simple stories, poems, rhymes, or songs, write friendly letters or thank you notes. **Listening and speaking:** Listen carefully and understand directions for performing tasks, listen to fiction/nonfiction read aloud and demonstrate understanding, recite short poems, rhymes, songs, and stories with repeated patterns, communicate effectively when relating experiences and retelling stories heard, use
complete sentences when speaking. Research Process: ask questions and recognize the teacher as an information source, use simple reference resources to locate and obtain information (pictures/environmental print), participate in creating a simple class report where the teacher is the scribe. Technology: Use technology resources to support learning (interactive whiteboard, digital cameras, internet, PowerPoint, videos, etc)

Math: Represents quantities with numbers up to 20, verbally, in writing and with manipulatives, solve problems including those involving sets by counting, by using cardinal and ordinal numbers, by comparing, by ordering, and by creating sets up to 20, describe/sort/re-sort objects using a variety of attributes such as shape, size, and position. Interpret the physical world with geometric shapes and describe it with corresponding vocabulary, use basic shapes, spatial reasoning, and manipulatives to model objects in the environment and to construct more complex shapes. Compare and order objects indirectly or directly using measurable attributes such as length, height, and weight. Identify and duplicate simple number and non-numeric repeating and growing patterns.

Social Studies: Understands broad categorization of time, knows the accomplishments of major scientists and inventors (ex. Booker T. Washington/peanuts), uses simple maps to identify places, knows basic needs and how families in the US and other countries meet them, knows the role that resources play in our daily lives, knows the qualities of a good citizen, knows that a responsibility is a duty to do something or not to do something, knows the sources of responsibility, examples of situations involving responsibility, and some of the benefits of fulfilling responsibilities.

LEVEL OF INVOLVEMENT

How does the garden promote student leadership?

We have several levels of leadership working within our gardening projects. The students in first and third grade are mentors during our gardening days and this year for the first time our kindergarteners have mentored PreK in the garden concepts they learned from their third grade mentors. First grade students mentor our kindergarteners in responsibility for the garden, garden procedures and social skills during our annual Transfer of the Garden Day. Third grade students construct learning situations where they are matched with kindergartener students to instruct them in a specific activity during our Gardening Day rotations; each third grade students will mentor five different kindergarten students in a one-to-one situation during garden rotations. This is the first year this mentoring has expanded into the garden with one class of third grade mentors becoming garden experts. These garden experts also mentor individual kindergarteners. They teach them the different parts of a plants and their uses, how to handle a plant, how to plant a plant and a seed as well as read books to them.

The third graders are also in charge of helping build the new areas to the garden, including the expansion of our Tea Garden beds. These activities enable our third graders to plan lessons, teach a concept and reflect upon their responsibilities. These students are becoming self-motivated and are refining their communication skills while they are learning and/or reinforcing concepts themselves. Our kindergartener students, in addition to mentoring PreK are also garden advocates, by keeping it clean and free from litter as well as encouraging others to do the same. Kindergarten students also encouraged the entire school district (elementary, middle, high schools) to participate with them in the Global Johnny Appleseed Project by writing letters to inform them of the project and inviting their school to participate with us. Our gardens are part of our service learning projects (this year we became the FIRST Public, non-charter, Elementary School to become a Florida Service Learning Leader
school). One area is our focus on intergenerational activities, by inviting seniors to garden days we are giving our kindergarteners practice in leadership skills such as responsibility, caring and problem-solving.

A local college has been invited to participate in our gardening projects; this partnership supports our students learning as well as enables the college students to complete their service learning requirements. Twelve students and their instructors have spent at least three hours mentoring our kindergarteners in the garden. This is actually leadership from outside our school but it models future possibilities for our students as well as citizenship skills. Our partnership with Rockledge High School’s home economics class to sew together our Earth Quilt is another example of our expansion of student leadership outside our school. Endeavour’s kindergarten is providing service learning, student leadership, mentoring and intergenerational opportunities to our students, other students in our school, other school’s students and our community.

Are there partnerships with garden-related organizations?

Our two local nurseries are staunch supporters of our gardening activities. They donate plants, provide discounts and advice. They schedule time to talk to our students about plants as well as attend our garden days and volunteer as adult mentors. (All combined over $800 in matching and in-kind funds) Kari Ruder, owner of Naturewise, a Florida Native plant nursery has spoken with our kindergarten classes five times so far this year but more importantly she designed the layout of the plants in our new butterfly habitat during our planning stages (seven months in advance) so we could utilize grant funds to build it. She has discussed plants such as the corky-stem passion vine, fire bush, pennyroyal and beach verbena. We currently have two master gardeners who volunteer during our garden days. Ms. Judy, wrote two separate articles about our gardens to entice other master gardeners to volunteer at Endeavour, Ms. Elaine joined us this year. Ms. Judy has also expanded her time at Endeavour to participate in our Tea Parties and our field trips as well as donating recycled items to our school for projects. Our county extension office has also supported us through resources and advice.

What type of school support is there for the school gardens?

Our entire school is supportive and interested in our gardens. Our kindergarten gardens are just one area of gardens on our campus. We have a hydroponics garden (fifth grade), a PreK Learning garden and a raised garden bed for each grade level to use as they see fit. Our art teacher is working with the entire student population to design and paint butterflies and/or flowers on a ceramic tile that will be adhered to the raised beds inside the butterfly castle. Our fifth and sixth grade students will be leader mentors and work with the primary classrooms to make a beautiful design on their individual tile as well as help install the tiles. Students from every grade level participated in our garden sign design contest. Our Hall of Arbors has been adopted by our intermediate TMH class and they are now responsible for watering and weeding it. Several classes have been providing food and plant scraps for our compost pile. Our technology specialist, our magnet coordinator, and two teacher assistants participate during gardening days to take photos, make videos, as well as work with supervising the student mentors. Our administration supports our garden activities wholeheartedly including "putting their money where their mouth is". In addition to the initial funding of the Butterfly Castle, we needed to add onto our gardens to provide space for planting during our March garden day. While we were waiting to receive official notification of a grant our administration paid for our materials (tea garden extension) with
the knowledge that if the grant wasn't officially funded the school would have to absorb the cost, but they approved the use of funds anyway. Our administrator frequently brings visitors to the gardens and has even encouraged her brother to volunteer during a garden day. Our custodians are always interested in our gardens and help us care for them. They keep it mowed and edged as well as helping to stake plants, share necessary tools, and help water the areas that are not covered by our sprinkler system.

**What type of community support is there for the school garden program?** Every year our community support grows. In addition to our two local nursery supporters, we have the support of Wal-Mart (money), local colleges (student volunteers), a home schooled family, garden clubs, master gardeners as well as parents, grandparents or other family members. Florida Today, our local paper has supported our gardening projects through the years and continued to do so this year. They provide us with positive recognition plus resources. Kari Ruder, Naturewise has an article about our school gardens on her website:

[www.naturewiseplants.com](http://www.naturewiseplants.com). Our local school district has a service learning department who has funded planting grants, presented gardening in-services and provided materials, such as books. The state Learn and Serve organization supports our gardens through funding, positive recognition (including our new status as a Florida Service Learning Leadership school), plus sharing ideas and resources. They also have our Kindergarten Garden Project as a link on their website: see Once Upon A Service Learning Journey, [www.fsu.edu/~flserve/projects/projects.html](http://www.fsu.edu/~flserve/projects/projects.html).

**GARDEN QUALITY**

**How/whom was the garden designed?**

The original butterfly garden (2003-04) was designed by the teacher of one of our kindergarten class but was constructed by the sixth grade book buddies. The following year (2004-05) our fifth grade classrooms measured the area and designed the ABC Garden. The kindergarteners voted upon their favorite and built the ABC garden. We did another garden contest in 2007-08 to determine the design of the Tea Garden. We combined two student ideas to build this garden. This year, due to the necessity of quickly designing and ordering the materials necessary to build the Butterfly Castle, we didn’t have the option to have our students design this garden. Instead we let the students design the garden signs.

**What qualities make this garden unique?**

Our Butterfly Castle is unique in the fact that it is a permanent butterfly habitat, which we believe is the only one on an elementary school campus (or possibly at any public school) in Florida. This habitat (20’ x 32’ screened enclosure) is wheel-chair accessible with an area that can be utilized for classroom lessons. Our Hall of Arbors is also unique because it utilizes facility structures (support poles) to make a repetition garden (each container garden is the same) and they are placed completely down the hallway- an idea that could be continued all over the entire campus to promote beautification as well as learning options. In the fall of 2008 our gardens became a Certified Wildlife habitat and have all the necessary criteria needed to promote and sustain wildlife.

**How is the garden cared for and maintained?**

The garden is planted, cared for and partially maintained by our kindergarten students and our third grade mentors throughout the course of the year. Throughout the years as our garden area has grown it has become too much for our students to have full responsibility of the maintenance of the garden so we have actively invited community members to volunteer time for maintenance. However, as we do want the students to understand about weeds, what
they are and how to deal with them, we do implement weeding days and also invite our TMH classes to help. Our master gardeners and nursery owners stay addition time during gardening days to trim, weed and irrigate our gardens. We also run into difficulties during Winter/Spring/Summer break and then the maintenance of the garden becomes the responsibility of the kindergarten teacher in charge with the help and support of the custodial staff. Last year we had an irrigation system installed and we don’t have to worry about a watering schedule in most areas of our gardens.

How were the plants selected and used?
The plants in the Butterfly Castle were selected due to their butterfly properties. Native Florida plants that are nectar and/or host plants for the various Florida butterflies were utilized. Due to our grant funding we had to determine and order the plants immediately and couldn’t involve the students in the research, however, Ms. Kari (Naturewise) donated the time and energy to research and designed this area for us. The Hall of Arbors entire purpose was to plant climbing vine plants which are hosts to butterflies (Passionvine plants) and we’ve had previous success with the Passionvines and while the teacher in charge made this decision, the kindergarten students found the seed pods, harvested the seeds, gently sanded the seeds and planted them. They grew and we’ve replanted over 10 Passionvines that we’ve sprouted from seeds. Our kindergarten students who participated in our monthly Tea Parties, which included tasting lemon and peppermint tea, acknowledged that they preferred our additional Tea Garden beds have more lemon and peppermint plants. These are the types of plants that we purchased to plant in the Tea Garden extension. Replacing plants that have perished due to cold or other means are usually replaced with the same type of plant. On the days that Ms. Kari shares a plant with us, we provide multiple plants of that type for our students to plant that day. Making the connection between what they heard in the classroom and planting it in the garden generates more mastery, especially of the names of the plants.

Is there an environmental focus to the garden program?
By the end of last school year, 2007-08, our gardens helped Endeavour become the winner of the Environmental Education award as well as the School Beautification award from Keep Brevard Beautiful (a yearly county contest). As mentioned previously we met our goal last year of becoming a Certified Wildlife Habitat. The building of our Butterfly Castle will provide us multiple opportunities to share butterfly and plant parts and lifecycles to every classroom on campus as well as any visitors. Our garden brochure (developed by our students last year) highlights our garden areas and is used for dissemination purposes. Our kindergarten teacher in charge has designed and taught multiple in-services and workshops on building a school garden to educate and promote environmental learning to other schools. This year we learned how to harvest seeds from our garden and we’ve been collecting more than we can plant so our future goal is to utilize this opportunity and either sell the seeds or give them to visitors. Our ultimate goal is to make our students environmentally aware both on our campus and within the community at large. To provide caterpillars to classroom in our school and other schools to promote environmental awareness and build connections between nature, life and learning.
Things I like about Garden Day:

- I like to teach the kids.
- I like working with the kids.
- I like reading seeds.
- I like planting.
Dear Friends of the Environment,

In 2007, Endeavour Elementary kindergarten students planted two lemon trees in our garden after collecting donations in order to participate in the Global Johnny Appleseed Project.

This year, the kindergarten students at Endeavour would like to invite your school to join us in this project by raising money and planting fruit trees at your school or nearby community areas. The Global Johnny Appleseed project has a mission to bring the issues of conservation and global warming into classrooms of the world. The number one goal of this project is to encourage every school in the United States or World to plant at least two apple (or regional fruit) trees. The benefits of this project include:

- Beautification of the environment
- Reduction of carbon dioxide
- A source of food
- Learning experiences
- Contribution to heritage

For more information including a PowerPoint presentation, lesson plan ideas, background information on both the project and Johnny Appleseed and to register for this project please visit: www.globaljohnnyappleseedproject.org.

This project runs from September until “harvest”. Our kindergarteners collected money starting on Johnny Appleseed’s September 26 birthday and throughout October then planted our lemon trees on November 1, 2007. We are planning to follow a similar schedule this year, please join us.

To help us track the amount of participation in Brevard County (or any questions or comments), please email: Wilcox.barbara@brevardschools.org the date joined, money raised, number of trees planted and interest in joining again next year. We would love to show our students photographs of your involvement also!

Thank you for your support in making Our World a Wonderful Place to Live.

Yours in Learning,

*Endeavour’s Kindergarten Team*

Jessica Holloman, Tegan Litt, Susan Harrison, Carol Post and Barbara Wilcox

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Mecheall Giombetti, Principal
*Richard A. DiPatri, Ed.D., Superintendent*
Phone: (321) 633-3545 • FAX: (321) 633-3546

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Children observe Appleseed day

Kindergartners plant lemon trees, learn of life cycle

By George White
Florida Today

Environmental lessons for some of the youngest students at Endeavour Elementary in Cocoa, based on the birthday of Johnny Appleseed, already are bearing fruit, in terms of knowledge, participation by other schools — and lemons.

Kindergarten teacher Barbara Wilcox last year marked the Sept. 26, 1774, birth date by having her class participate in the Global Johnny Appleseed Project, with the planting of two small lemon trees.

"We're also covering how to take care of them, keeping them free of weeds, and beneficial insects, such as butterflies and ladybugs," she said.

This year the project runs from Sept. 26 until "harvest" in early November, at which time the new trees will be planted.

"We're excited, because other school are now getting involved, and we've already raised $40, so we'll be able to plant bigger trees this year," Wilcox said.

Other lessons being taught through the lemon-tree planting include the life cycle of plants — from seed to plant to blooms to lemons and back to seeds for another tree, she said.

Kindergartners plant lemon trees, learn of life cycle

About the celebration

The birthday of John Chapman, or Johnny Appleseed, born Sept. 26, 1774, is marked each year by the Global Johnny Appleseed Project. Chapman, considered one of America's first conservationists, believed that planting and protecting apple trees everywhere he traveled would help prevent people from going hungry.

Project mission

The project has a mission to bring the issues of conservation and global warming into classrooms of the world by encouraging every school to plant at least two apple (or regional fruit) trees. Benefits of this project include:

- Beautification of the environment
- Reduction of carbon dioxide
- A source of food
- Learning experiences

To find out more

For more information about the project, contact Barbara Wilcox by e-mail at Wilcox.barbara@brevardschools.org or follow the link to the Global Johnny Appleseed Project at FLORIDATODAY.com
NEw SABAL PALM DISEASE

Sabal palmetto (cabbage palm) in Manatee County have been diagnosed with a lethal phytoplasma disease. PRELIMINARY laboratory analysis indicates that the phytoplasma that causes Texas Phoenix palm decline (TPPD) is also causing the decline of the cabbage palms. A pdf has been posted on the FLREC web site. The link is http://flrec.ifas.ufl.edu/, then click on "Plant Pathology", then on "Palm Diseases". The pdf is the 8th document on the list. You will also find a link to the pdf with directions on how to take trunk samples for phytoplasma detection (http://flrec.ifas.ufl.edu/pdfs/LY-TPPD-Trunk-Sampling.pdf).

This is going to be an extremely difficult disease to diagnose early in the disease process. Over-trimmed palms and improperly fertilized palms in the landscape will show many other symptoms that will be unrelated to this disease. Even palms in natural settings have nutritional symptoms that will be unrelated to this disease. In other words, there are various reasons why cabbage palms will not be green all the way to the bottom of the canopy, and those reasons may have nothing to do with being infected with a phytoplasma.

The entomologist at DPI who was already beginning to investigate potential insect vectors associated with Phoenix species with TPPD will expand that survey to include cabbage palms. No one expects that identification of the vector will be achieved quickly. This will be a very long-term project.

Share Your Plants

Judy Lipofsky has a white water lily that she needs to divide and re-pot. She would be happy to share with another pond person. She also has coral and red jatropha, surinam cherries, American beautyberry, and pink rain lilies. She can be reached by email:
judithlipofsky@yahoo.com

Have any plants that you want to share? Just give us a call or email Carmen at escarmeng@charter.net and let us know what you’ve got!

Wanted Plants

Have any plants you’re looking for? Just give us a call or email Carmen at escarmeng@charter.net and let us know what you want!

The Gardens
at Endeavour Elementary
By Judy Lipofsky

Earlier this year (January through May) I became a garden volunteer at Endeavour Elementary School in Cocoa. It is a magnet school and the gardens are the magnet. Each grade has its own project. I worked with Barbara Wilcox and the kindergarten classes. We planted flowering annuals and herbs. We experimented with making herb teas and had two tea parties.

At first some of the children seemed afraid to put their hands in the dirt. Many did not know what roots were or what their purpose was. Over the course of the project they learned a lot, not only about plants, but about manners and working together.

Endeavour has just become a National Wildlife Federation Certified Wildlife Habitat Site. They now have a permanent butterfly habitat (20 x 32’ screened enclosure with raised bed gardens). If you have never been by this school (at 905 Pineda St. in Cocoa) you should stop by and be surprised. You might even want to join the fun.

Master Gardener Meeting
August 20

Please plan to attend the next master gardener meeting, which will be held on Wednesday, August 20 from 12 to 2ish pm at the Cocoa Agricultural Center. The agenda will include: A covered dish lunch, an exciting speaker on bees and beekeeping, and a plant swap. So, cook up your favorite dish, grab your extra plants and we’ll see you on the 20th for a fun and informative meeting.
2-1-1 can provide information for job seekers, as well as information on food stamps, food pantries and social services counseling.

For more information, call (321) 631-6290 or visit www.211brevard.org

Chowder cook-off winners announced

PORT CANAVERAL - More than 1,000 people got the chance to chow down on Brevard County's finest samples of chowder at the 34th Annual Chowder Cook-Off with a Twist Feb. 6.

Presented by the Cocoa Beach Area Chamber of Commerce, the cook-off was hosted in Cruise Terminal No. 3 at Port Canaveral and included 15 area restaurants.

Grills Seafood Deck and Tiki Bar in Port Canaveral was chosen as having the best chowder on the Space Coast, said Darlene Hight, manager of partnership development for the Cocoa Beach Area Chamber of Commerce, in a news release.

Crown Plaza Melbourne Oceanfront came in second place and Ron Jon Surf Shop Grill took third place.

A panel of local celebrity judges, including Mike and Mindy of Lite Rock 99.3-FM, Joanna Merrifield of Wild Ocean Seafood Market, Tom Goodson of the Canaveral Port Authority and Rocky Randels, mayor of Cape Canaveral, chose the winners.

Conch Key Grill and Tiki Bar in Rockledge was presented with the People's Choice Award.

200 plants honor Abraham Lincoln

COCOA - Kindergarteners at Endeavour Elementary School in Cocoa honored the 200th birthday of Abraham Lincoln by planting 200 plants Feb. 12.

"We have started studying about (President) Lincoln as the beginning of our Special Americans unit. It's hard for our kindergarten students to visualize (the number) 200, so now with the plants, they will be able to see and understand that 200 is a large number," said kindergarten teacher Barbara Wilcox.

Air Fest takes off this weekend

GRANT-VALKARIA - The third annual Valkaria Air Fest is scheduled for Saturday, Feb. 21, at Valkaria Airport.

The festival features dozens of various types of aircraft on display, air shows, the opportunity to meet aviation legends, aircraft rides, aviation-related children's rides and a classic car and motorcycle rally.

A pancake breakfast will be served from 7:30-11 a.m. Other Air Fest events will run 8 a.m. to 6:30 p.m. The rain date is Feb. 22.

Valkaria Airport is about 1.7 miles west of U.S. 1 and on the south side of Valkaria Road.

For information, call the airport at (321) 952-4590 or LeRoy Rutgers at (321) 727-1419, or visit www.valkariaairfest.org.